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L12: Entry 1 of 1   File: USPT   Mar 6, 2001

DOCUMENT-IDENTIFIER: US 6196146 B1
TITLE: Web based embroidery system and method

Abstract Text (1):
A web based embroidery system capable of creating an automatically fulfilling a
user customized embroidery order for a selectable garment over the internet. The
system includes the ability to select the garment to be customized over the
internet, to selectably locate an embroidery area on that garment, to select a
customized embroidery pattern over the internet to be located in the user selected
embroidery area, the ability to display an embroided simulation of the user located
customized embroidery pattern on the selected garment, and the ability to provide
embroidery pattern controlled signals over the internet to a remotely located
embroidery machine for automatically stitching the user located customized
embroidery pattern on an actual garment corresponding to the selected garment based
on the displayed embroided simulation, which maybe a three dimensional simulation.
In addition, customized embroidery lettering can be created and may be combined
with a preexisting embroidery pattern. Furthermore, on-line editing may be employed
as well as individual colorizing by the user. This can be accomplished on
customized web sites as well as templated websites. In addition, a system is
enclosed which permits autodigitizing of user generated images over the internet
which may be automatically converted into embroidery patterns, cost estimates based
thereon and, after confirmation by the user, used to automatically generate
embroidery patterns on actual garments.

Brief Summary Text (7):
A method and system is disclosed for a web based embroidery system capable of
creating and automatically fulfilling a user customized embroidery order for a
selectable garment over the internet. The system includes the ability to select the
garment to be customized over the internet, to selectably locate an embroidery area
on that garment, to select a customized embroidery pattern over the internet to be
located in the user selected embroidery area, to display an embroidered simulation
of the user located customized embroidery pattern on the selected garment, which
may be three dimensional, and to provide embroidery pattern control signals over
the internet to a remotely located embroidery machine for automatically stitching
the user located customized embroidery pattern on an actual garment corresponding
to the selected garment based on the displayed embroided simulation. In addition,
customized embroidery lettering can be created and may be combined with a
preexisting embroidery pattern. Furthermore, on-line editing may be employed as
well as individual colorizing by the user. This can be accomplished on customized
web sites as well as templated websites. In addition, a system is disclosed which
permits autodigitizing of user generated images over the internet which may be
automatically converted into embroidery patterns, cost estimates provided to the
user based thereon and, after confirmation by the user, the converted pattern may
be used to generate embroidery patterns on actual garments.

Detailed Description Text (6):
Thereafter, the user selects an embroidery pattern to be placed at that location,
such as a preexisting embroidery pattern stored in PASSPORT LIBRARIAN 10. This is

represented by reference numeral 44 in FIG. 2. In accordance with the presently preferred method of the present invention, the user has the ability to also add text for embroidery lettering to the embroidery pattern to create a customized combined embroidery pattern. If the user adds text, he has the ability to select, in conventional fashion, the text, the font, the height of the lettering and the color of the lettering. These steps are represented by reference numerals 46 and 48 in FIG. 2. Whether or not text is added to the pattern, the customized embroidery pattern is then generated and the embroidery engine then generates an embroidery simulation image which is preferably a three dimensional embroided simulation displayed at the selected location on the selected garment at the user site. These steps are represented by reference numerals 50, 52 and 54 in FIG. 2. These steps are illustrated in greater detail in FIG. 3. As shown and preferred in FIG. 3, the text, font, height, and coloring of the letters are sent to the embroidery engine 26 for combination with the preexisting embroidery pattern that was selected from PASSPORT LIBRARIAN 10. This step is represented in FIG. 3 by reference numeral 56. The embroidery engine 26 then preferably generates the embroidery stitch pattern which has been selected, as represented by reference numeral 58 in FIG. 3, and combines the lettering embroidery pattern created by the user with the previously selected embroidery stitch pattern, as represented by reference numeral 60 in FIG. 3. The customized embroidery pattern which is displayed at the user site and sent over the internet 32 is thereby created, as represented by reference numeral 62 in FIG. 3. The three dimensional rendering function of the embroidery engine 26 is then called up to create the three dimensional simulation of the customized embroidery pattern, as represented by reference numeral 64 in FIG. 3, and the embroidery pattern and embroidery simulation are sent back to the client or user web browser 30 via the internet 32, as represented by reference numeral 66 in FIG. 3, for display at the user site. Preferably, the user may edit the display pattern on the web browser 30, as represented by referenced numeral 68 in FIG. 2 and then the edited pattern is sent back via the internet 32 through the web server 28 and the embroidery engine 26 to the PASSPORT CONTROLLER 12 and on to the embroidery machine 20, 22, or 24 through the appropriate PASSPORT SMART BOX 14, 16, or 18 to automatically fulfill the customized embroidery order by stitching the customized embroidery pattern on an actual garment corresponding to the selected garment at the selected location indicated by the user. This fulfillment step is represented by reference numeral 70 in FIG. 2.

Detailed Description Text (8):
FIG. 5 illustrates the automatic fulfillment of a customized embroidery pattern on a selected garment in accordance with the method described above. In this regard, the web server 28 preferably generates an order number for the current transaction and the embroidery engine 26 generates the customized embroidery pattern as described above. The embroidery engine 26 preferably save the customized embroidery pattern in PASSPORT LIBRARIAN 10 using the order number as a file name. The web server 28 generates an order file that is transmitted to the embroidery machine 20, 22, or 24 or to the machine operator, who then enters the order number on the associated PASSPORT SMART BOX 14,16, or 18. The PASSPORT SMART BOX 14, 16, or 18 then sends the order number to the PASSPORT CONTROLLER 12 which then sends the order number on to the PASSPORT LIBRARIAN 10. The PASSPORT LIBRARIAN then retrieves the customized embroidery pattern and sends it back to the PASSPORT CONTROLLER 12, which then sends this customized pattern on to the appropriate PASSPORT SMART BOX 14, 16, or 18 which then, in turn, then sends the pattern control signals on to the associated embroidery machine 20, 22, or 24 which then automatically stitches the selected customized pattern on the selected garment at the selected location. As noted in FIG. 5, the confirmation step may involve the transmission of payment via the internet 32, in conventional fashion, prior to the embroidery machine 20, 22, or 24 stitching the customized pattern.

Detailed Description Text (9):
Referring now to FIG. 4, the presently preferred method of autodigitizing of customer created artwork is illustrated. This method enables user created bit map

designs to be uploaded and autodigitized to create an embroidery pattern which may be costed out for the customer, approved by the customer and then stitched on an actual garment, all via the internet 32. As shown and preferred in FIG. 4, the first few steps of the process up through the selection of the embroidery location on the garment are preferably the same as described with reference to FIG. 2 and have been given the same reference numerals. After the embroidery location on the garment is selected, the image to be uploaded is selected by the user and transmitted as a bit map over the internet 32 from the web browser 30. This is represented by reference numeral 72 in FIG. 4. The embroidery engine function for converting this bit map to an embroidery pattern is then called up in the embroidery engine 26 as represented by reference numeral 74 in FIG. 4. The next few steps of adding text or customized lettering if desired, generating a customized embroidery pattern and embroidery simulation image which is preferably a three dimensional simulation, and displaying the embroidery simulation at the selected location on the selected garment are preferably the same as previously described with reference to FIG. 2 and the same references numerals are employed in FIG. 4. Similarly, the displayed design may be edited, as was described with reference to FIG. 2 and the same reference numeral is employed in FIG. 4 as was utilized for this function in FIG. 2. At this point, preferably, since the bit map has been converted into an embroidery pattern, a cost estimate can be provided for stitching that embroidery pattern based on information stored in the system relating to such variables as stitch count etc. that are conventionally utilized to estimate the cost of stitching embroidery patterns. This cost estimate is preferably sent to the web browser 30 via the internet 32 and displayed at the user site. This step is represented by reference numeral 76 in FIG. 4. Assuming that the cost estimate is satisfactory to the user, the user then sends a confirmation to the web server 28 via the internet 32. Again, this confirmation may be in the form of authorizing payment. This step is represented by reference numeral 78 in FIG. 4. The embroidery pattern, after confirmation, is then generated and automatically fulfilled in the same manner as was previously described with reference to FIG. 2, as represented by reference numeral 80 in FIG. 4. FIG. 6 is an illustrative diagram of a typical process in accordance with the autodigitizing function described above, starting with customer art work and ending with embroided finished product.

Detailed Description Text (10):
Thus, in accordance with the present invention, preexisting embroidery patterns may be automatically fulfilled or user generated art work may be converted to an embroidery pattern and automatically fulfilled. In either instance, customized lettering may be created by the user and combined with the embroidery pattern. In this matter, a true web based embroidery system which permits both customized order entry and automatic fulfillment may be achieved with the user having the opportunity to first view a three dimensional embroidery simulation of the end product before it is stitched.

CLAIMS:

1. A web based embroidery system capable of creating and automatically fulfilling a user customized embroidery order for a selectable garment over the internet, said system comprising:

means for selecting a garment to be customized over the internet;

means for selectably locating an embroidery area on said selected garment from a plurality of user selectable locations;

means for selecting a customized embroidery pattern over the internet to be located in said user selected embroidery area;

means for displaying an embroidered simulation of said user located customized embroidery pattern on said selected garment; and

means for providing embroidery pattern control signals over the internet to a remotely located embroidery machine for automatically <u>stitching</u> said user located customized embroidery pattern on an actual garment corresponding to said selected garment based on said displayed embroidered simulation for automatically fulfilling said user customized embroidery order.

18. An embroidery system in accordance with claim 17 further comprising means for providing a cost estimate for <u>stitching</u> said embroidery pattern on an actual garment corresponding to said selected garment at said user selected location.

19. An embroidery system in accordance with claim 18 further comprising means for confirming said embroidery order for said converted embroidery pattern and for providing embroidery pattern control signals over the internet to a remotely located embroidery machine for automatically <u>stitching</u> said converted embroidery pattern on said actual garment at said user selected location in response to said confirmed embroidery order.

24. A method for creating and automatically fulfilling a user customized embroidery order for a selectable garment over the internet, said method comprising the steps of:

selecting a garment to be customized over the internet;

selectably locating an embroidery area on said selected garment from a plurality of user selectable locations;

selecting a customized embroidery pattern over the internet to be located in said user selected embroidery area;

displaying an embroidered simulation of said user located customized embroidery pattern on said selected garment; and

providing embroidery pattern control signals over the internet to a remotely located embroidery machine for automatically <u>stitching</u> said user located customized embroidery pattern on an actual garment corresponding to said selected garment based on said displayed embroidered simulation for automatically fulfilling said user customized embroidery order.

30. A method in accordance with claim 29 further comprising the step of providing a cost estimate for <u>stitching</u> said embroidery pattern on an actual garment corresponding to said selected garment at said user selected location.

31. A method in accordance with claim 30 further comprising the steps of confirming said embroidery order for said converted embroidery pattern and providing embroidery pattern control signals over the internet to a remotely.located embroidery machine for automatically <u>stitching</u> said converted embroidery pattern on said actual garment at said user selected location in response to said confirmed embroidery order.

<u>Previous Doc</u>   <u>Next Doc</u>   <u>Go to Doc#</u>

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L9: Entry 1 of 1   File: USPT   Jun 5, 1990

DOCUMENT-IDENTIFIER: US 4931929 A
TITLE: Design component selection computer with specification of product
characteristics and of color by machine readable device

Abstract Text (1):
A process for identification, description and display of design components, such as
interior decoration products, selected by describing desired component
characteristics to a digital computer. An image database is provided, preferably in
the form of an addressable optical videodisk, each frame of which portrays an
individual design component, and the images are displayed by operation of a
computer-controlled archive system such as a random-access optical videodisk
player. A characteristics database is provided to identify each portrayed design
component by a variety of product categories including at least color, price,
manufacturer and image database address. The process obtains one or more desired
component characteristics, examines the characteristics database to identify design
components meeting the desired product characteristics, and displays the identified
component images together with a complete record of characteristics for each
product. The desired color characteristic can be obtained by selection from a text
dictionary of color identification terms, by machine inspection of a machine-
readable color comparison sample, or by optical spectrum analysis of a pre-existing
product sample.

Brief Summary Text (4):
The sheer volume of catalog information and product samples offered to the design
consultant presently makes the task of interior decoration akin to the proverbial
finding of a needle in a haystack. The sheer physical volume of such materials
typically overwhelms the office of the consultant and provides a misleading
impression of disorganization. Moreover, there is no uniform system of indexing for
access to catalog information, so the design consultant is forced to rely on human
memory to recall an upholstery, wallcovering or other product of appropriate visual
characteristics and associate that item with a page or section in a particular
manufacturer's catalog in order to locate related information as to price,
fireproofing, availability and other factors. The disadvantages of such a system is
readily apparent, for no human memory can encompass the hundreds of thousands of
pages available to the design consultant in catalogs.

Brief Summary Text (5):
A consumer attitude survey has established that the average consumer has a negative
attitude with regard to interior decoration consulting. The survey established that
consumers offer two particular reasons for the negative attitude: first, that
decoration consultants are perceived to charge high prices, and second, the
consumer can select design elements to achieve results equally satisfying to those
of a decoration consultant. The consumer attitude, of course, does not take into
account the large volume of information which the design consultant is forced to
maintain at hand, nor does it recognize the considerable expertise which is applied
by the design consultant to extract appropriate information from the catalogs at
hand suitable for a specific customer.

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L16: Entry 1 of 1   File: USPT   Mar 6, 2001

DOCUMENT-IDENTIFIER: US 6196146 B1
TITLE: Web based embroidery system and method

Abstract Text (1):
A web based embroidery system capable of creating an automatically fulfilling a
user customized embroidery order for a selectable garment over the internet. The
system includes the ability to select the garment to be customized over the
internet, to selectably locate an embroidery area on that garment, to select a
customized embroidery pattern over the internet to be located in the user selected
embroidery area, the ability to display an embroided simulation of the user located
customized embroidery pattern on the selected garment, and the ability to provide
embroidery pattern controlled signals over the internet to a remotely located
embroidery machine for automatically stitching the user located customized
embroidery pattern on an actual garment corresponding to the selected garment based
on the displayed embroided simulation, which maybe a three dimensional simulation.
In addition, customized embroidery lettering can be created and may be combined
with a preexisting embroidery pattern. Furthermore, on-line editing may be employed
as well as individual colorizing by the user. This can be accomplished on
customized web sites as well as templated websites. In addition, a system is
enclosed which permits autodigitizing of user generated images over the internet
which may be automatically converted into embroidery patterns, cost estimates based
thereon and, after confirmation by the user, used to automatically generate
embroidery patterns on actual garments.

Application Filing Date (1):
20000323

Brief Summary Text (5):
Embroidery systems capable of creating customized patterns are well know such as
available from Pulse Microsystems under the designations Pulse Signature. Other
such systems are also available from Brother Kogyo, Kabushiki, Kaisha, such as
disclosed in U.S. Pat. Nos. 6,012,402; 5,988,083; 5,865,134; 5,924,374; and
5,924,372. The above mentioned patents generally refer to the possibility of
utilizing the internet to transmit embroidery data but do not dislikes any system
or method for implementation of such an approach. Two recent prior art web based
systems utilizing the Internet allow some customization of a garment over the
Internet. These websites are known as www.madetoorder.com and www.starbelly.com.
However, these prior art web based systems do not include a capability of
automatically generating embroidery lettering or the ability to create truly
customized embroidery designs nor do they allow automatic fulfillment of a user
customized embroidery order for a selectable garment over the internet. For
example, these prior art systems do not work with embroidery data but rather work
with bitmap raster images. In addition, any display of images to the user is only a
two dimensional image and is not a three dimensional embroidery simulation. Thus,
it is difficult for the user to have a realistic picture of the embroidery pattern
being ordered on the garment that the user has selected. In addition, none of these
prior art systems permits autodigitizing of customer created art work over the
internet such as the ability to upload these images, convert them to an embroidery

pattern and provide a <u>cost</u> estimate to the user quickly by allowing the user to thereafter confirm the order and have the <u>embroidery</u> pattern generated on an actual garment in order to fulfill the order. These disadvantages of the prior art are overcome by the present invention.

<u>Brief Summary Text</u> (7):
A method and system is disclosed for a web based <u>embroidery</u> system capable of creating and automatically fulfilling a user customized <u>embroidery</u> order for a selectable garment over the internet. The system includes the ability to select the garment to be customized over the internet, to selectably locate an <u>embroidery</u> area on that garment, to select a customized <u>embroidery</u> pattern over the internet to be located in the user selected <u>embroidery</u> area, to display an <u>embroidered</u> simulation of the user located customized <u>embroidery</u> pattern on the selected garment, which may be three dimensional, and to provide <u>embroidery</u> pattern control signals over the internet to a remotely located <u>embroidery</u> machine for automatically stitching the user located customized <u>embroidery</u> pattern on an actual garment corresponding to the selected garment based on the displayed embroided simulation. In addition, customized <u>embroidery</u> lettering can be created and may be combined with a preexisting <u>embroidery</u> pattern. Furthermore, on-line editing may be employed as well as individual colorizing by the user. This can be accomplished on customized web sites as well as templated websites. In addition, a system is disclosed which permits autodigitizing of user generated images over the internet which may be automatically converted into <u>embroidery</u> patterns, <u>cost</u> estimates provided to the user based thereon and, after confirmation by the user, the converted pattern may be used to generate <u>embroidery</u> patterns on actual garments.

<u>Detailed Description Text</u> (9):
Referring now to FIG. 4, the presently preferred method of autodigitizing of customer created artwork is illustrated. This method enables user created bit map designs to be uploaded and autodigitized to create an <u>embroidery</u> pattern which may be <u>costed</u> out for the customer, approved by the customer and then stitched on an actual garment, all via the internet 32. As shown and preferred in FIG. 4, the first few steps of the process up through the selection of the <u>embroidery</u> location on the garment are preferably the same as described with reference to FIG. 2 and have been given the same reference numerals. After the <u>embroidery</u> location on the garment is selected, the image to be uploaded is selected by the user and transmitted as a bit map over the internet 32 from the web browser 30. This is represented by reference numeral 72 in FIG. 4. The <u>embroidery</u> engine function for converting this bit map to an <u>embroidery</u> pattern is then called up in the <u>embroidery</u> engine 26 as represented by reference numeral 74 in FIG. 4. The next few steps of adding text or customized lettering if desired, generating a customized <u>embroidery</u> pattern and <u>embroidery</u> simulation image which is preferably a three dimensional simulation, and displaying the <u>embroidery</u> simulation at the selected location on the selected garment are preferably the same as previously described with reference to FIG. 2 and the same references numerals are employed in FIG. 4. Similarly, the displayed design may be edited, as was described with reference to FIG. 2 and the same reference numeral is employed in FIG. 4 as was utilized for this function in FIG. 2. At this point, preferably, since the bit map has been converted into an <u>embroidery</u> pattern, a <u>cost</u> estimate can be provided for stitching that <u>embroidery</u> pattern based on information stored in the system relating to such variables as stitch count etc. that are conventionally utilized to estimate the <u>cost</u> of stitching <u>embroidery</u> patterns. This <u>cost</u> estimate is preferably sent to the web browser 30 via the internet 32 and displayed at the user site. This step is represented by reference numeral 76 in FIG. 4. Assuming that the <u>cost</u> estimate is satisfactory to the user, the user then sends a confirmation to the web server 28 via the internet 32. Again, this confirmation may be in the form of authorizing payment. This step is represented by reference numeral 78 in FIG. 4. The <u>embroidery</u> pattern, after confirmation, is then generated and automatically fulfilled in the same manner as was previously described with reference to FIG. 2, as represented by reference numeral 80 in FIG. 4. FIG. 6 is an illustrative diagram of a typical

process in accordance with the autodigitizing function described above, starting with customer art work and ending with embroided finished product.

Current US Cross Reference Classification (3):
705/27

CLAIMS:

18. An embroidery system in accordance with claim 17 further comprising means for providing a cost estimate for stitching said embroidery pattern on an actual garment corresponding to said selected garment at said user selected location.

30. A method in accordance with claim 29 further comprising the step of providing a cost estimate for stitching said embroidery pattern on an actual garment corresponding to said selected garment at said user selected location.

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L13: Entry 1 of 1   File: USPT   May 1, 2001

DOCUMENT-IDENTIFIER: US 6226412 B1
TITLE: Secure digital interactive system for unique product identification and
sales

Application Filing Date (1):
19980209

Brief Summary Text (6):
Systems also exist which support the sale of unique products or items, such as
trucks having particular equipment, or persons having particular characteristics.
One example of a system of this type is disclosed by Bijnagte (U.S. Pat. No.
5,235,680), wherein the product is real estate. The system architecture of Bijnagte
is limited to that of the host-terminal, however, and all transactions, including
picture scanning, are performed on an on-line, interactive basis. Images are
limited to 8-bit color and a maximum of sixteen in number, and are further limited
in size to dimensions in pixels of 128.times.100 (approximately 1/4 screen at
relatively low resolution), and data compression is limited to approximately 2:1,
which is characteristic of "loss-free" compression in which there is no actual
reduction in the amount of data. In addition, only limited means are included to
prevent unauthorized access or modification of records.

Detailed Description Text (3):
For the purposes of this disclosure, it should be understood that the term "item"
is intended to refer to any product (new or used), service, or person to be listed
within the databases of this invention, and for which or whom information is
available for searching based on a plurality of predetermined characteristics.
Broadly, the system may be used in conjunction with marketing activities such as
advertising the availability for the sale of automobiles, trucks, heavy equipment,
vehicle parts, or real estate, or even regarding characteristics of individuals
(though not limited thereto), wherein text and image information files are stored
in and retrieved from a relational database and an image database respectively, and
wherein a client computer site may convey bidding or other information related to
such products to a central server computer. In creating a database for such items,
it is first necessary to determine the various characteristics by which the
individual items will be searched or sorted. For products, this could include
characteristics such as color, size, or style; for real estate, this could include
location of the property or price range; for people, the traits might include
professional or career activities, medical or legal specialties, age, or even
physical attributes. When these factors have been identified, a relational database
may be created, by which the various items or people may be sorted in accordance
with one or more of the predetermined characteristics.

Detailed Description Text (12):
For data entry, the descriptive records for the specific items are stored in the
relational database file server 30, while the associated images are uploaded for
storage on the image file server 40. In operation, the storage locations of the
associated image files managed by the image file server are referenced by the
database file server, and the image are provided as requested by the client through

the communications server 20. The actual <u>images</u> may be stored as "pages" within an <u>image</u> compilation file, and may include one or more "<u>thumbnail</u>" or reduced-size <u>images,</u> which may or may not be illustrative of particular full-size <u>images,</u> and which may be transmitted quickly to give an over-view of the item. Alternatively, the images may be organized with a primary picture file, with or without an associated reduced-size image, and a secondary image file containing multiple image pages, with or without reduced-size images. In the latter situation, the user would first request a download of the primary image file for an item, and then, if desired, would have the option of also downloading the secondary image file, in order to obtain further information about that particular item. All data files and images files are held in the active (RAM) memory, or off-loaded to the local hard-drive, of the client PC, so that they may be reviewed and compared by the operator as desired, without further communication activities. In client PCs having multi-tasking capabilities, the downloading process may continue as a background task, while the operator examines the material that has already been received and, as necessary, decrypted as a foreground task. In this way, the operator need not wait until all of the data has been downloaded before beginning the examination of the materials transmitted.

<u>Detailed Description Text</u> (22):
FIG. 3 illustrates one possible format, arranged for video-television display usage, for the automatic, sequential display of selected item information and associated images retrieved from either the local item or central item databases. The standard VGA-format screen dimensions of 640 pixels (horizontal).times.480 <u>pixels</u> (vertical) are shown generally as 100. Within the screen display 100 is an image display area, indicated as 102. This area may contain one or more images from a variety of sources. If a still video camera by Dycam, Inc. has been utilized to accumulate images, this image area will be completely filled by the camera output image.

<u>Current US Cross Reference Classification</u> (4):
705/26

<u>Previous Doc</u>   <u>Next Doc</u>   <u>Go to Doc#</u>

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       L1: Entry 1 of 1                  File: USPT              Mar 9, 1999
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US-PAT-NO: 5880740
DOCUMENT-IDENTIFIER: US 5880740 A

TITLE: System for manipulating graphical composite image composed of elements
selected by user from sequentially displayed members of stored image sets

DATE-ISSUED: March 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Halliday; Mark David	Cambridge	MA		
Donoghue; Karen	Cambridge	MA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Network Sound & Light, Inc.	Chestnut Hill	MA			02

APPL-NO: 08/ 679297   [PALM]
DATE FILED: July 12, 1996

INT-CL: [06] G06 T 3/00

US-CL-ISSUED: 345/435
US-CL-CURRENT: 345/629

FIELD-OF-SEARCH: 395/133, 395/135, 345/433, 345/435, 345/348, 364/479.03

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

[Search Selected] [Search ALL] [Clear]

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5559714	September 1996	Banks et al.	364/479.03

ART-UNIT: 272

PRIMARY-EXAMINER: Jankus; Almis R.

ATTY-AGENT-FIRM: Call, Esq.; Charles G.

ABSTRACT:

A computer graphical image manipulation and transmission system which enables a user to create a composite image by using a positional input device to select individual elements of the composite image to be changed. The system automatically presents alternative image elements in a predetermined sequence each time a given zone of the composite image is specified. The image modification proceeds by simply selecting image areas with a mouse or the like, eliminating the need for pop-up or drop-down menus, dialog boxes, tool boxes, or drag-and-drop image palettes. The selection of any image element may also cause an ancillary function to be performed, including the automatic alteration of the image elements associated with another zone of the image. The image composite image thus created may be converted into a standard bitmap file for use in other programs, or may take the form of an data structure containing zone coordinates and image identifiers, allowing the image modification session to be resumed and further allowing the transfer of an complex image by sending a relatively small amount of data when the individual image elements from which the image is constructed are available to both the transmitting and receiving station. The image manipulation and viewing mechanism may be utilized in standard applications adapted to receive and manipulate composite image applications in container documents, and is adapted for use with web browsers capable of displaying the composite images as imbedded images in web documents.

20 Claims, 11 Drawing figures

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L6: Entry 1 of 1   File: USPT   Jun 5, 1990

DOCUMENT-IDENTIFIER: US 4931929 A
TITLE: Design component selection computer with specification of product
characteristics and of color by machine readable device

Abstract Text (1):
A process for identification, description and display of design components, such as
interior decoration products, selected by describing desired component
characteristics to a digital computer. An image database is provided, preferably in
the form of an addressable optical videodisk, each frame of which portrays an
individual design component, and the images are displayed by operation of a
computer-controlled archive system such as a random-access optical videodisk
player. A characteristics database is provided to identify each portrayed design
component by a variety of product categories including at least color, price,
manufacturer and image database address. The process obtains one or more desired
component characteristics, examines the characteristics database to identify design
components meeting the desired product characteristics, and displays the identified
component images together with a complete record of characteristics for each
product. The desired color characteristic can be obtained by selection from a text
dictionary of color identification terms, by machine inspection of a machine-
readable color comparison sample, or by optical spectrum analysis of a pre-existing
product sample.

Application Filing Date (1):
19870814

Brief Summary Text (20):
As the search of the database is completed, the present invention promotes
efficiency of displaying a count of all products matching the characteristics
defined by the user, as well as displaying the image of one such product for
inspection by the user. Thus the user need not be forced to view all matching
products, particularly where the specified characteristics were so imprecise as to
result in a large number of matching products which would require a great deal of
time to inspect. The present invention retains a search list of the specified
characteristics provided by the user so that the user may modify the list as
appropriate to expand or restrict the scope of products identified by the system.
Should the user choose to inspect all or part of the images located by the system
according to the specified characteristics, the present invention provides that the
user may control advancement of the product images displayed on the high-resolution
video monitor and the correspnding text of characteristics displayed on the
computer video monitor.

Current US Cross Reference Classification (3):
705/27

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L6: Entry 1 of 1   File: USPT   Jun 5, 1990

US-PAT-NO: 4931929
DOCUMENT-IDENTIFIER: US 4931929 A

TITLE: Design component selection computer with specification of product
characteristics and of color by machine readable device

DATE-ISSUED: June 5, 1990

INVENTOR-INFORMATION:
NAME	CITY	STATE	ZIP CODE	COUNTRY
Sherman; Robert E.	Chevy Chase	MD		

ASSIGNEE-INFORMATION:
NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Search & Source, Incorporated	Alexandria	VA			02

APPL-NO: 07/ 085338   [PALM]
DATE FILED: August 14, 1987

PARENT-CASE:
RELATED APPLICATIONS This is a continuation of application Ser. No. 693,721 filed
Jan. 22, 1985, abandoned, which is a continuaton-in-part of Ser. No. 599,703 filed
Apr. 12, 1984, abandoned. This application is related to application Ser. No.
665,529 filed Oct. 26, 1984, now abandoned.

INT-CL: [05] G06F .15/21, G01J 3/46

US-CL-ISSUED: 364/401; 364/521, 364/526, 235/375
US-CL-CURRENT: 705/500; 235/375, 345/593, 705/27

FIELD-OF-SEARCH: 364/2MSFile, 364/9MSFile, 364/400, 364/401, 364/518, 364/526,
235/375, 235/383, 340/825.35

PRIOR-ART-DISCLOSED:

                    U.S. PATENT DOCUMENTS

▓▓ Search Selected ▓▓ | ▓▓ Search ALL ▓▓ | ▓▓ Clear ▓▓

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3568155	March 1971	Abraham	
☐	4029391	June 1977	French	356/418 X
	4029419	June 1977	Schumann, Jr. et al.	356/418 X

☐

☐	4318121	March 1982	Taite et al.	358/22
☐	4359631	November 1982	Lockwood et al.	235/381
☐	4418390	November 1983	Smith et al.	364/526
☐	4445178	April 1984	Scheer et al.	364/400
☐	4449198	May 1984	Kroon et al.	364/900
☐	4488245	November 1984	Dalke et al.	364/526
☐	4490810	December 1984	Hon	364/900
☐	4523852	June 1985	Bauer	356/421 X

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FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	US-CL
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"Retailers Beginning to Tune in Video Displays", Advertising Age, Nov. 18, 1985, 66.
"Videodisc: Product Search Launched for Architects and Interior Designers", Videodisc and Optical Disk, vol. 5, No. 4, Jul./Aug. 1985, 244-247.
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Hoke, P., "Comp-U-Store System Could Change Retail Economics", Direct Marketing, vol. 46, No. 3, Jul. 1983, 101-107.
CASPIR coding sheets, U.S. Patent & Trademark Office, 1974 and 1981.
Cavanagh, R. T., "Educational/Institutional Features of the Optical Videodisc System", SMPTE Journal, vol. 86, No. 4, Apr. 1977, 201-3.

ART-UNIT: 326

PRIMARY-EXAMINER: Jablon; Clark A.

ATTY-AGENT-FIRM: Hale; John S.

ABSTRACT:

A process for identification, description and display of design components, such as interior decoration products, selected by describing desired component characteristics to a digital computer. An image database is provided, preferably in the form of an addressable optical videodisk, each frame of which portrays an individual design component, and the images are displayed by operation of a computer-controlled archive system such as a random-access optical videodisk player. A characteristics database is provided to identify each portrayed design component by a variety of product categories including at least color, price,

manufacturer and image database address. The process obtains one or more desired component characteristics, examines the characteristics database to identify design components meeting the desired product characteristics, and displays the identified component images together with a complete record of characteristics for each product. The desired color characteristic can be obtained by selection from a text dictionary of color identification terms, by machine inspection of a machine-readable color comparison sample, or by optical spectrum analysis of a pre-existing product sample.

9 Claims, 3 Drawing figures

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L11: Entry 1 of 1   File: USPT   May 1, 2001

US-PAT-NO: 6226▓▓▓
DOCUMENT-IDENTIFIER: US 6226412 B1

TITLE: Secure digital interactive system for unique product identification and
sales

DATE-ISSUED: May 1, 2001

INVENTOR-INFORMATION:
NAME   CITY   STATE   ZIP CODE   COUNTRY
Schwab; Barry H.   West Bloomfield   MI   48322

APPL-NO: 09/ 020456   [PALM]
DATE FILED: February 9, 1998

PARENT-CASE:
CROSS-REFERENCE TO RELATED APPLICATION This application is a continuation-in-part
of co-pending U.S. application Ser. No. 08/410,318, filed Mar. 24, 1995 now
abandoned for SECURE DIGITAL INTERACTIVE SYSTEM FOR PRODUCT SALES OR
IDENTIFICATION, the disclosures of which are incorporated herein by reference.

INT-CL: [07] G06 K 9/00

US-CL-ISSUED: 382/232; 348/17, 370/282, 379/93.01, 382/305, 705/26
US-CL-CURRENT: 382/232; 370/282, 379/93.01, 382/305, 705/26

FIELD-OF-SEARCH: 382/100, 382/176, 382/190, 382/206, 382/232, 382/235, 382/243,
382/290, 382/292, 382/305, 382/306, 707/8-10, 707/100-104, 707/202-205, 707/529-
530, 370/392, 370/282, 379/90.01, 379/920.03, 379/91.02, 379/93.01, 379/93.12,
379/93.14, 379/100.12, 379/102.01, 379/154-155, 379/183, 705/26-27, 705/37,
235/379-383, 395/200.42, 395/200.43, 395/200.46, 395/200.47, 395/200.49, 348/17,
348/18, 348/161, 345/335

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

▓▓▓ Search Selected ▓▓▓   ▓▓▓ Search ALL ▓▓▓   ▓▓▓ Clear ▓▓▓

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4677552	June 1987	Sibley, Jr.	705/37
☐	4685001	August 1987	Martin	386/52
☐	4953196	August 1990	Ishikawa et al.	348/18

☐   5058185   October 1991   Morris et al.   382/305

☐   5218633   June 1993   Clagett et al.   379/144

☐   5235680   August 1993   Bijnagte   707/10

☐   5307262   April 1994   Ertel   705/2

☐   5465401   November 1995   Thompson   455/558

☐   5515424   May 1996   Kenney   379/93.22

☐   5684999   November 1997   Okamoto   704/9

☐   5751286   May 1998   Barber et al.   345/348

☐   5889896   March 1999   Meshinsky et al.   382/305

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Simpson et al., "The SSABLE system: Automated Archive, Catalog, Browse, and
Distribution of Satellite Data in Near-Real Time", IEEE Transactions on Geoscience
and Remote Sensing, Mar. 1993, pp. 515-525.

ART-UNIT: 263

PRIMARY-EXAMINER: Patel; Jayanti K.

ATTY-AGENT-FIRM: Plunkett & Cooney, PC Weintraub; Arnold S.

ABSTRACT:

Methods and apparatus are described which provide secure interactive communication
of text and image information between a central server computer and one or more
client computers located at remote sites for the purpose of storing and retrieving
files describing unique products, services or individuals. Textual information and
image data from one or more of the remote sites are stored separately at the
location of the central server, with the image data being in a compressed form, and
with the textual information being included in a relational database with
identifiers associated with any related image data. Means are provided at the
central computer for management of all textual information and image data received
to ensure that all information may be independently retrieved. Requests are entered
from remote terminals specifying particular subject matter, and the system is
capable of responding to multiple simultaneously requests. Textual information is
recalled and downloaded for review along with any subsequently requested image data
to be displayed at a remote site. Various modes of data and image formatting are
also disclosed, including encryption techniques to fortify data integrity.

24 Claims, 6 Drawing figures

<u>Previous Doc</u>   <u>Next Doc</u>   <u>Go to Doc#</u>

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L11: Entry 1 of 1   File: USPT   May 1, 2001

DOCUMENT-IDENTIFIER: US 6226412 B1
TITLE: Secure digital interactive system for unique product identification and
sales

Application Filing Date (1):
19980209

Detailed Description Text (3):
For the purposes of this disclosure, it should be understood that the term "item"
is intended to refer to any product (new or used), service, or person to be listed
within the databases of this invention, and for which or whom information is
available for searching based on a plurality of predetermined characteristics.
Broadly, the system may be used in conjunction with marketing activities such as
advertising the availability for the sale of automobiles, trucks, heavy equipment,
vehicle parts, or real estate, or even regarding characteristics of individuals
(though not limited thereto), wherein text and image information files are stored
in and retrieved from a relational database and an image database respectively, and
wherein a client computer site may convey bidding or other information related to
such products to a central server computer. In creating a database for such items,
it is first necessary to determine the various characteristics by which the
individual items will be searched or sorted. For products, this could include
characteristics such as color, size, or style; for real estate, this could include
location of the property or price range; for people, the traits might include
professional or career activities, medical or legal specialties, age, or even
physical attributes. When these factors have been identified, a relational database
may be created, by which the various items or people may be sorted in accordance
with one or more of the predetermined characteristics.

Detailed Description Text (12):
For data entry, the descriptive records for the specific items are stored in the
relational database file server 30, while the associated images are uploaded for
storage on the image file server 40. In operation, the storage locations of the
associated image files managed by the image file server are referenced by the
database file server, and the image are provided as requested by the client through
the communications server 20. The actual images may be stored as "pages" within an
image compilation file, and may include one or more "thumbnail" or reduced-size
images, which may or may not be illustrative of particular full-size images, and
which may be transmitted quickly to give an over-view of the item. Alternatively,
the images may be organized with a primary picture file, with or without an
associated reduced-size image, and a secondary image file containing multiple image
pages, with or without reduced-size images. In the latter situation, the user would
first request a download of the primary image file for an item, and then, if
desired, would have the option of also downloading the secondary image file, in
order to obtain further information about that particular item. All data files and
images files are held in the active (RAM) memory, or off-loaded to the local hard-
drive, of the client PC, so that they may be reviewed and compared by the operator
as desired, without further communication activities. In client PCs having multi-
tasking capabilities, the downloading process may continue as a background task,

while the operator examines the material that has already been received and, as
necessary, decrypted as a foreground task. In this way, the operator need not wait
until all of the data has been downloaded before beginning the examination of the
materials transmitted.

Current US Cross Reference Classification (4):
705/26

Previous Doc   Next Doc   Go to Doc#

☐ Generate Collection   Print

L7: Entry 1 of 1   File: USPT   Jun 5, 1990

DOCUMENT-IDENTIFIER: US 4931929 A
TITLE: Design component selection computer with specification of product
characteristics and of color by machine readable device

Abstract Text (1):
A process for identification, description and display of design components, such as
interior decoration products, selected by describing desired component
characteristics to a digital computer. An image database is provided, preferably in
the form of an addressable optical videodisk, each frame of which portrays an
individual design component, and the images are displayed by operation of a
computer-controlled archive system such as a random-access optical videodisk
player. A characteristics database is provided to identify each portrayed design
component by a variety of product categories including at least color, price,
manufacturer and image database address. The process obtains one or more desired
component characteristics, examines the characteristics database to identify design
components meeting the desired product characteristics, and displays the identified
component images together with a complete record of characteristics for each
product. The desired color characteristic can be obtained by selection from a text
dictionary of color identification terms, by machine inspection of a machine-
readable color comparison sample, or by optical spectrum analysis of a pre-existing
product sample.

Application Filing Date (1):
19870814

Brief Summary Text (4):
The sheer volume of catalog information and product samples offered to the design
consultant presently makes the task of interior decoration akin to the proverbial
finding of a needle in a haystack. The sheer physical volume of such materials
typically overwhelms the office of the consultant and provides a misleading
impression of disorganization. Morever, there is no uniform system of indexing for
access to catalog information, so the design consultant is forced to rely on human
memory to recall an upholstery, wallcovering or other product of appropriate visual
characteristics and associate that item with a page or section in a particular
manufacturer's catalog in order to locate related information as to price,
fireproofing, availability and other factors. The disadvantages of such a system is
readily apparent, for no human memory can encompass the hundreds of thousands of
pages available to the design consultant in catalogs.

Brief Summary Text (5):
A consumer attitude survey has established that the average consumer has a negative
attitude with regard to interior decoration consulting. The survey established that
consumers offer two particular reasons for the negative attitude: first, that
decoration consultants are perceived to charge high prices, and second, the
consumer can select design elements to achieve results equally satisfying to those
of a decoration consultant. The consumer attitude, of course, does not take into
account the large volume of information which the design consultant is forced to
maintain at hand, nor does it recognize the considerable expertise which is applied

by the design consultant to extract appropriate information from the catalogs at hand suitable for a specific customer.

Brief Summary Text (6):
Therefore, to enable consumer design component selection, as well as to enhance the efficiency of design component consultants, it would be appropriate to provide a system for rapid access to the information heretofore available only through printed and material catalogs. Rather than relying on memory, which is at best inefficient and requires years of experience, such a system would allow the user to specify component criteria, for a variety of products and then rapidly display components meeting the stated criteria together with other relevant information for each displayed product component such as price, manufacturer, and catalog number. In addition, such a system may be provided for use by consumers within a retail establishment such as a department store, where the system could indicate whether a displayed item was in stock, back-ordered, or available only special order.

Brief Summary Text (10):
Among the first of the consumer-oriented disk systems as the 1981 Summer Catalog disk offered by Sears at no charge to its credit customers. This disk utilized a variety of the controls available on a typical videodisk player and illustrates the limitations as well as the advantages thereof. One limitation was the image resolution of a home television receiver on which the images were typically displayed. Due to this resolution difficulty, only a limited menu of alternatve selections could be provided on any one video frame. For the most part, the user would operate the player in a still-frame mode. The user would view a master menu frame, select a submenu and advance the player to an indicated frame for that submenu, and repeat the process until a frame or frames of actual product information display were indicated. Thus the user would normally advance through three or four levels of menu, and advancement would require manual entry of a four- or five-digit frame number, used by the player to locate and display the desired video frame bearing either menu text or product data. This system suffers from lack of flexibility in that it utilizes one prerecorded menu structure embodying a rigid presumption that the user conducted searches invariably and only by product type. Moreover, the disk displayed products only in representative colors and not in all avalable colors, so that any question of color availability, which is typically important in design coordination, could be answered only through manual inquiry with Sears employees.

Brief Summary Text (14):
The J. P. Stevens Company has also utilized videodisk players as a catalog system for their fabric products. Their system has been placed in retail stores for use to determine availability of products, and provides only a single-key selection process. Thus a user can select on the basis of color identified by text input, or on the basis of price, but not on the basis of color and price simultaneously. This system clearly suffers from the critical defect of being insufficiently precise in its selection process for the needs of either the consumer or the design consultant.

Brief Summary Text (15):
The design consultant typically selects materials and products based on a variety of criteria, which may include scale and frequency of pattern, color, material, weave, price, special treatment (e.g., fireproofing), size, level of formality, finish, and credit terms, to name but a few of many. Not only will the specifics of these criteria vary from customer to customer but some customers may demand very specific characteristics for categories in which others are willing to accept wide variations. Thus the prior art fails to provide a visual display system which accommodates the need for flexibility in both selection of criteria categories and degree of specificity within categories. Without such flexibility, the prior art has found little or no acceptance among design consultants or consumers.

Brief Summary Text (19):
With regard to categories of product characteristics other than color and price, the present invention preferably provides a dictionary of recognized responses which is organized according to a hierarchy of detail: that is, the most generalized responses are presented most prominently, with subdivision for a first level of detail, and subdivisions thereof for further levels of detail depending on the attributes of the desired product type. The user may thus choose a response within a category which is as general or as specific as desired, and the system will then search for products having characteristics in any divisions lying under the selected vocabulary time.

Brief Summary Text (20):
As the search of the database is completed, the present invention promotes efficiency of displaying a count of all products matching the characteristics defined by the user, as well as displaying the image of one such product for inspection by the user. Thus the user need not be forced to view all matching products, particularly where the specified characteristics were so imprecise as to result in a large number of matching products which would require a great deal of time to inspect. The present invention retains a search list of the specified characteristics provided by the user so that the user may modify the list as appropriate to expand or restrict the scope of products identified by the system. Should the user choose to inspect all or part of the images located by the system according to the specified characteristics, the present invention provides that the user may control advancement of the product images displayed on the high-resolution video monitor and the correspnding text of characteristics displayed on the computer video monitor.

Detailed Description Text (12):
Turning now to FIG. 3, a process of system operation is illustrated for the selection and display of design component products meeting desired constraints of price, color and other characteristics. In step 100, a database of records corresponding to design component products is provided to the computer 12. Each record of this database identifies a plurality of characteristics of the corresponding design component product. Products are grouped into files by type, such as chairs, carpets, or wallcovering, and all products within a given type are described within their corresponding records by a common group of categories of characteristics. Products of a different type may be described by different categories. For instance, paint is described by liquid volume whereas furniture can be described by height, width and depth. However, all products, regardless of type, share at least four common categories of characteristics: price, manufacturer, color and a location of the design component image within an image database. As implemented in the preferred embodiment, the location of each design component image is identified by frame number on the disk 22.

Detailed Description Text (21):
In step 800, the computer generates a display of product characteristics and transfers that display as composite video through channel 38 to display monitor 16. This is especially advantageous for determining characteristics not readily apparent on the monitor 24, such as prices, fireproofing, availability, and absolute size. Again, the precise categories displayed will vary from product type to product type.

Detailed Description Text (23):
In the preferred embodiment, a great number of categories exist for each product type presently cataloged in the inventive system. In order to conserve disk and memory resources and enhance search speed, a unique number is assigned to each valid response in the dictionary of responses for each category of chararcteristics. Some characteristics, such as price and color, are easily quantified, while other characteristics such as fabric type or manufacturer, are assigned index numbers arbitrarily. Thus, in step 300, any valid response word

selected from a dictionary is automatically converted by the system to an index
number through a table search process. All key files then consist of numbers rather
than character strings of the word responses themselves. Further, all data records
consist of numbers positioned in fields corresponding to the categories, and each
number can be re-converted to the corresponding word for display in step 800 by a
well-known process of table lookup using the number as an offset from an initial
address. Thus the technique becomes totally transparent to the user while
conserving finite system resources.

Current US Cross Reference Classification (3):
705/27

CLAIMS:

1. A process of operating a video archieve system for selection and display of
design component information with the aid of a digital computer, comprising:

a. providing said video archive system with an optical videodisk image database
comprising a plurality of addressable images of design components on at least one
side;

b. providing said computer with a characteristics database comprising a plurality
of records corresponding to each of said design components, each said record
comprising a plurality of characteristic identifiers describing said corresponding
design component and including at least characteristic identifiers in categories of
price, color, manufacturer and location of an image of said corresponding design
component on the optical videodisk;

c. providing said computer with a selection of one or more desired product
component characteristics, including color, said color being provided to said
computer through machine-readable color input means which indicates said color as
digitized quantities of hue, chroma and value so that each color falls within a
predetermined block of color coordinates and means for selection of personal color
preference from among a plurality of colors derived from a color module using an
order of color dominance, said colors being adapted to be displayed by said video
archive system;

d. choosing, in said computer, records from said characteristics database having
characteristic identifiers corresponding to said desired component characteristics;

e. extracting from each said chosen product record, in said computer, a location of
said design component image corresponding to said chosen record;

f. transferring said location of said image corresponding to said chosen record
from said computer to said video archive system, and causing said video archive
system to display said image corresponding to said chosen record; and

g. displaying said plurality of characteristic identifiers of said chosen record
corresponding to said displayed image of said design component.

Previous Doc   Next Doc   Go to Doc#